

Understand and apply theorems about circles (Standards G.C.1-4)

**Standard II.G.C.1:** Prove that all circles are similar.

Concepts and Skills to Master

- Recognize that any two circles are related by a dilation, possibly along with a translation.
- Write up a formal argument explaining their reasoning for why two circles must be similar.

Related Standards: Current Course

[II.G.C.2](#); [II.G.C.5](#); [II.G.SRT.1](#); [II.G.SRT.2](#); [II.G.SRT.5](#); [II.G.GPE.1](#);  
[II.G.GPE.4](#)

Related Standards: Future Courses

[III.F.TF.1](#); [III.G.MG.1](#); [III.G.MG.3](#);

Support for Teachers

Critical Background Knowledge

- Correctly name shapes ([K.G.2](#))
- Know the area and circumference of a circle ([7.G.4](#))
- Know precise definition of circle ([I.G.CO.1](#))

Academic Vocabulary

Resources

[Curriculum Resources](https://www.uen.org/core/core.do?courseNum=5620#71552): <https://www.uen.org/core/core.do?courseNum=5620#71552>

Understand and apply theorems about circles (Standards G.C.1-4)	
<b>Standard II.G.C.2:</b> Identify and describe relationships among inscribed angles, radii, and chords. <i>Relationships include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.</i>	
Concepts and Skills to Master	
• Explore various properties related to circles (include measures of central, inscribed and circumscribed angles) • Form conjectures about the relationships they find. • Develop justifications for why their conjectures work.	Related Standards: Future Courses <a href="#">III.G.MG.1</a> ; <a href="#">III.G.MG.3</a>

## Support for Teachers

Critical Background Knowledge
• Correctly name shapes ( <a href="#">K.G.2</a> ) • Draw points, lines, line segments, rays, angles, and parallel and perpendicular lines. Identify these in two-dimensional figures. ( <a href="#">4.G.1</a> ) • Know the area and circumference of a circle ( <a href="#">7.G.4</a> ) • Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment ( <a href="#">I.G.CO.1</a> )
Academic Vocabulary
inscribed angle, central angle, circumscribed angle, chord, tangent line
Resources
<a href="https://www.uen.org/core/core.do?courseNum=5620#71552">Curriculum Resources</a> : <a href="https://www.uen.org/core/core.do?courseNum=5620#71552">https://www.uen.org/core/core.do?courseNum=5620#71552</a>